

## REMARKS

### The October 21, 2003 Office Action

Claims 1-19 are pending in the application. In the October 21, 2003 Action, the Office has rejected all pending claims under 35 USC §102 or 35 USC §103. Applicants have carefully reviewed the Office Action and submit that in view of the amendments and remarks herein, all grounds for rejection are overcome. Applicants request the Examiner to reconsider.

### Telephone Interview with Examiner

Applicants thank Examiner for the courtesies shown in the telephone discussions on December 16, 2003. No agreement was reached as a result of the discussion.

### Amendment to the Claims

Independent Claims 1, 7, 10 and 18 are amended to recite that the functional bean has the property that it is configured to model a business function in contrast to a data object as in the case of Enterprise JavaBeans.

Independent claim 18 is also amended to recite the language from the preamble in the body of the claim. That claim now recites the step --creating a functional bean from an object-oriented middleware component-- in the body of the claim.

Support for these changes is in the specification. No new matter is added as a result of these amendments. A functional bean is described in the instant application as follows.

“[I]t has been discovered that mapping an object to a function, rather than to a data element provides significant advantages, especially in managing limited resources that are accessed by a plurality of clients. Further, the presently available Enterprise JavaBeans (EJB) can be programmed to achieve such a mapping.

“Accordingly, in an embodiment, the disclosure is directed to a novel ‘functional’ bean, which is devoted to modeling a business function. Clients do not 2829Xneed to know the particular primary key or identifier as in the case of an entity EJB; rather a client knows only a well-known Service Manager bean to obtain a handle to the correct type of functional bean.

"If a client needs to request a service offered by such a functional bean, it can be invoked directly. In one aspect, these functional beans are created and managed by a bean container such as an EJB container. The container controls access to these beans by way of a Service Manager. In one embodiment, the Service Manager itself is modeled as a functional bean, whose function is that of a manager of the other functional beans."

See p. 7, ll. 18-30 (emphasis added). The instant functional bean is further described as follows.

"This is based on the idea that the entity bean must model only entities (i.e., one or more database records). A problem with this approach is that the service providers are not visible to the client, where there could be a need for such visibility. As stated earlier, if there is a need for a number of database records to be simultaneously accessed by a client, then there will be a proliferation of such beans if each record is modeled as an entity bean. In extreme cases, such a proliferation may result in a depletion of available resources for other tasks. Further, since access to these entity beans should be serialized, each successive client with a need to access a particular row (or an entity bean) for an update should wait for its turn. Moreover, there is an implicit assumption that the client should know beforehand the primary key (or the identifier) of the entity bean it needs to contact. The current methods do not provide an easy solution to these problems, though one could craft an unwieldy solution using session beans. Accordingly, there is a need for a new bean type that provides transactional capability of an entity bean without its persistence, and models business functions." See p. 7, ll. 1-14.

Functional bean is further described in pages 10-11.

In view of the fact that the amended independent claims describe a functional bean that models a business function rather than a data object, it is submitted that the claims as amended are patentably distinct from all of the cited references, taken either individually or in combination. The primary reference relied on by the Examiner, Pospíšil, for example, may model database records, but it does not describe using an enterprise bean to model business functions.

**CONCLUSION**

In view of the foregoing remarks, Applicants respectfully request the Examiner to reconsider and issue an early notice of allowance.

Respectfully Submitted,

  
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